

What is claimed is:

1. An active matrix liquid crystal panel having a repairable configuration, comprising:

an active matrix substrate including:

5 a plurality of signal lines and scanning lines, which are arranged to form a matrix of pixels;

a plurality of switching devices provided at intersections of the signal lines and the scanning lines;

10 a plurality of comb-shaped pixel electrodes connected to the switching devices;

a plurality of first common electrodes including closed-loop branches and root traces, wherein the closed-loop branches are connected to root traces; and

15 a plurality of comb-shaped second common electrode including a plurality of first apertures and second apertures, wherein two ends of the signal lines are electrically connected to their adjoining closed-loop branches and root traces through the first apertures and the second apertures respectively if the signal lines are broken;

20 an opposing substrate facing the active matrix substrate; and

a liquid crystal layer disposed between the active matrix substrate and the opposing substrate.

25 2. The active matrix liquid crystal panel having a repairable configuration of Claim 1, wherein two ends of the root traces space a distance from the second common electrode.

3. The active matrix liquid crystal panel having a repairable configuration of Claim 1, wherein the broken signal lines are repaired to

electrically connect to their adjoining closed-loop branches and root traces by a laser repair apparatus.

4. The active matrix liquid crystal panel having a repairable configuration of Claim 1, wherein the second aperture is adjacent to the scanning line connected to the pixel.

5. The active matrix liquid crystal panel having a repairable configuration of Claim 1, wherein the second common electrode and the pixel electrode have a teeth portion in one pixel, and the two teeth portions go toward the opposite directions and are alternately arranged for a herringbone-shaped structure where horizontal electrical fields exist.

6. The active matrix liquid crystal panel having a repairable configuration of Claim 1, wherein the second common electrodes and the pixel electrodes are stacked on an organic insulator layer.

7. A method for repairing defects of an active matrix liquid crystal panel, comprising the steps of:

providing a plurality of first common electrodes including closed-loop branches and root traces, wherein the closed-loop branches are connected to root traces, and the closed-loop branches and root traces face their adjoining signal lines through first apertures and second apertures respectively;

cutting the two ends of the root trace for isolating from the first common electrode if the adjoining signal line is broken;

welding one end of the broken signal line with the closed-loop branch through the first aperture; and

welding one end of the broken signal line with the cut root trace through the second aperture.

8. The method for repairing defects of an active matrix liquid

crystal panel of Claim 7, wherein two ends of the root trace are cut by a laser cutting apparatus.

9. The method for repairing defects of an active matrix liquid crystal panel of Claim 7, wherein the two ends of the broken signal line are
5 welded with the closed-loop branch and the root trace by a laser repair apparatus.